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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/602,431	06/23/2000	Nk Srinivas	204862	1389

23460 7590 03/24/2004

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EXAMINER

MEKY, MOUSTAFA M

ART UNIT	PAPER NUMBER
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2157

DATE MAILED: 03/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/602,431

Applicant(s)

SRINIVAS, NK

Examiner

Moustafa M Meky

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 January 2004.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☒ Claim(s) 2-5, 7 and 11-20 is/are allowed.
6) ☒ Claim(s) 1, 6, 8-10 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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1. The amendment filed 1/20/2004 has been entered and considered by the examiner.
2. Claims 1-20 are presenting for examination.
3. Claims 2-5, 7 & 11-20 are allowed over the prior art of record.
4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 6, & 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Denker (US Pat. No. 5,958,053).
6. As to claims 1 & 8-9, Denker discloses a method for establishing a TCP/IP connection between a client and a server such that the server may withstand a SYN flood attack (see col 4, lines 30-33). The method of Denker comprising:
 - * receiving a TCP SYN packet including a client IP address requesting the formation of a TCP/IP connection from the client, see col 4, lines 54-55, col 7, lines 12-14, lines 31-32;
 - * transmitting a TCP-ACK (SYNACK) to the IP address of the client, see col 4, lines 58-60, col 7, lines 36-37.

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Denker does not teach allocating a small TCB in memory to service a TCP/IP three-way handshake (Denker allocates no memory resources in his own system). However, Denker suggests using a small TCB block in memory in order to avoid the SYN flooding by reducing the amount of memory allocation for the TCB block to service the TCP/IP three way handshake, see col 2, lines 60-67, col 3, line 1. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the system of Denker to allocate a small TCB block in the memory in order to avoid the server from flooding.

7. As to claim 6, Denker teaches the limitations of receiving an ACK from the client in response to the TCP-ACK (SYNACK) to complete the establishment of a TCP connection (see col 4, lines 63-65, col 5, lines 6-8, col 8, lines 19-20), and caching route information for the client (see col 8, lines 37-42).

8. As to claim 10, Denker teaches receiving an ACK from the client in response to the TCP-ACK (SYNACK) to complete the establishment of a TCP connection (see col 4, lines 63-65, col 5, lines 6-8, col 8, lines 19-20) and allocating a full TCB to serve the TCP connection (see col 5, lines 3-8, col 9, lines 29-33).

Therefore, it can be seen from paragraphs 6-8 that the modified system of Denker teaches the limitations of claims 1, 6, 8-10.

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9. The applicant argues in his remarks that Denker does not teach the step of allocating a small TCB to service a TCP/IP three-way handshake.

9.1. In response to the above argument, see paragraph 6 above.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Moustafa M. Meky whose telephone number is (703) 305-9697. The examiner can normally be reached on week days from 8:30 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne, can be reached on (703) 308-7562. The fax phone number for this Group is (703) 308-9052.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-9600. The fax number for the After-Final correspondence/amendment is (703) 746-7238. The fax number for official correspondence/amendment is (703) 746-7239. The fax number for Non-official draft correspondence/amendment is (703) 746-7240. M.M.M

March 20, 2004


MOUSTAF A M. MEKY
PRIMARY EXAMINER